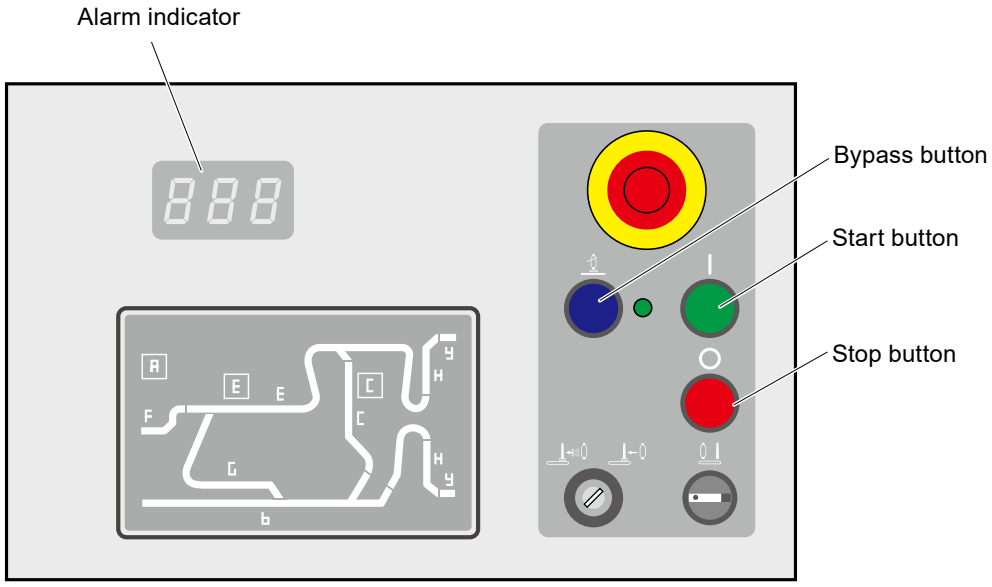
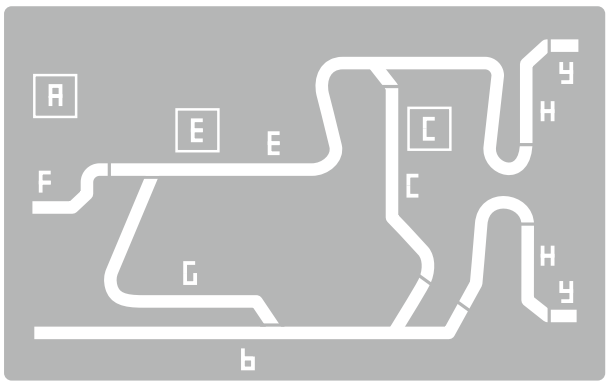
Sec 1 Alarm List

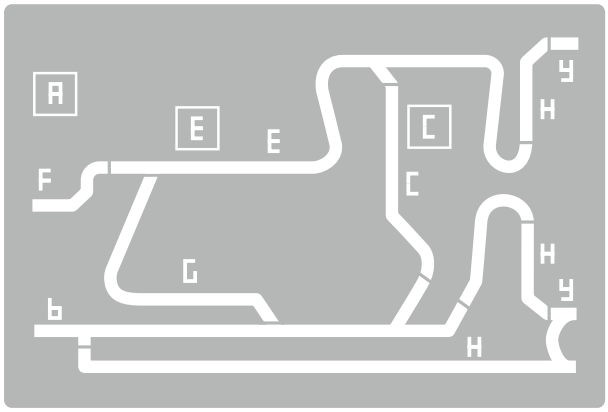
The following is a description of the possible errors that could occur during operation and the countermeasures for them.

* The alarm no. will be displayed in the alarm indicator on the CBF operation panel.





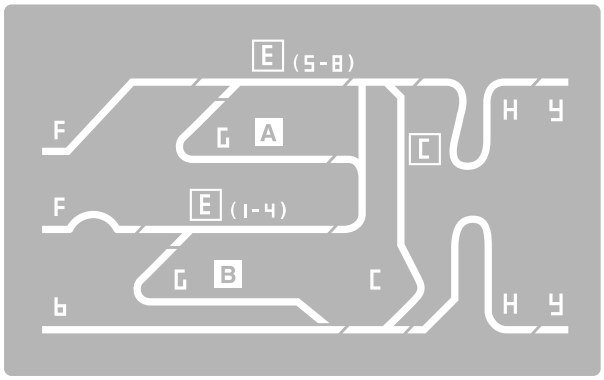
Link Coner for Cop-Robo×1
(Bobbin stripper)



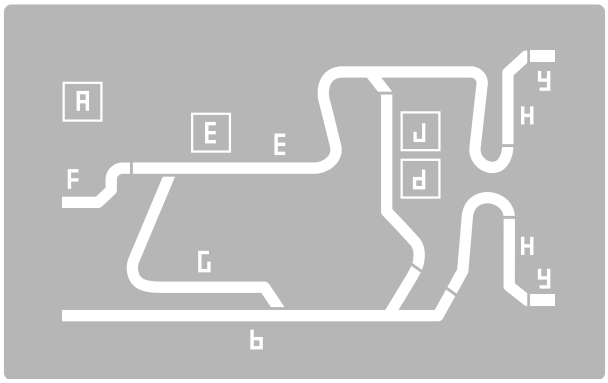
Link Coner
(with spin inspector conveyor)

[Alarm location]

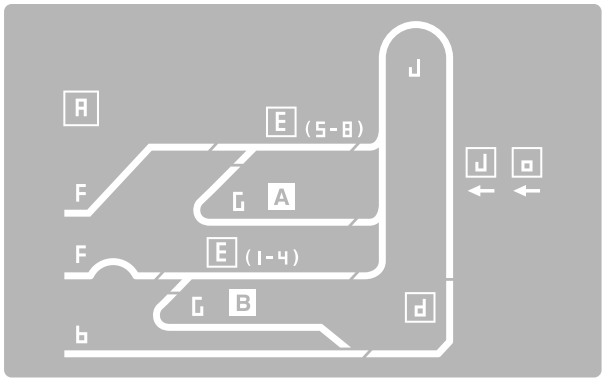
- A : **Electricity-related**
- b : **Return conveyor**
- C : **Bobbin stripper**
- d : **Bobbin ejector**
- E : **Yarn end finder**
- F : **After yarn end finder (feed conveyor)**
- G : **Bypass line**
- H : **Link conveyor**
- J : **Chute part**
- L : **Chute part (at the back of the machine)**
- o : **Supply part**
- P : **Supply part (at the back of the machine)**
- U : **Steam setter**
- y : **Spinning frame (for Link Coner only)**



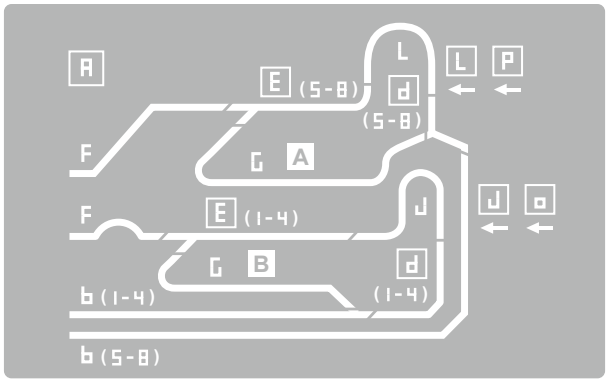
Link Coner for Cop-Robo × 2
(Bobbin stripper)



Link Coner for Cop-Robo × 1
(Empty bobbin supply device)



Bobbin Tray for 1 yarn type: Cop-Robo × 2



Bobbin Tray for 2 yarn types

A: Electricity-related (A5: Front side of the machine, A6: Back side of the machine)

No.	Alarm name	Description	Countermeasures
A1	DC24V Power Error	The 24 V DC power supply in the CBF control box is faulty	- Check the condition of the LED1C of the printed circuit board in the control box * Check if there is a short circuit failure in the wiring when LED is turned OFF
A2	CAN Comm. Err	CAN (lower order) communication error	- Check the VOS alarm screen to find the alarm location - Check the wiring for the fiber SPC and to each slave (power supply lines and communication line), and check the slave switch
A3	PC LINK Comm. Err	CAN (upper order) communication error	- Check for cable connector, pin and other disconnections - Check to make sure that the power is supplied to the fiber SPC
A4	Conveyor Thermal Trip	An overload or open-phase has occurred in the return conveyor, feed conveyor, or link conveyor due to yarn dragging or some other reason	- Check the motor and belts, and remove the cause of the trip. Then reset the thermal relay - If the return conveyor is an inverter specification, check the contents of the inverter alarm and reset it
A5 A6	Yarn End Find Thermal Trip	An overload or open-phase has occurred in the yarn end finder motor (for the searcher spindle and rotary cutter, as well as the spindle, CBF, and conveyor)	Check the motor and belts, and remove the cause of the trip. Then reset the thermal relay.
A7	Remote I/O Output Error	An output error has occurred at the slave or SPC	- Check the VOS alarm screen to find the alarm location - Remove the cause and turn the circuit breaker OFF/ON (Replace the circuit board if the alarm is still ON)
A8	Emergency Stop	The CBF emergency stop switch has been pressed	Perform a safety check and after releasing the switch, press the CBF start button. * Even when the CBF power supply is down, an emergency stop alarm will also be displayed on the VOS (but not displayed on the indicator). A communication alarm will also be displayed on the VOS at the same time.

b: Return conveyor (b1~b4: Front side of the machine, b5~b6: Back side of the machine)

No.	Alarm name	Description	Countermeasures
b1 b5	TrayFull atReturnC/V	The full of trays sensor for the return conveyor is ON	The trays that are returned are in excess of the processing capability of the CBF. Wait for the CBF to process the trays.
b2 b6	Tray Jam in Empty Line	A tray is jammed in the return conveyor due to yarn dragging or some other reasons	Remove the cause and press the CBF start button
b4	Jam After Ret. C/V Ejec	Tray is jammed after it was discharged at the empty line	Remove the cause and press the CBF start button

C: Bobbin stripper

No.	Alarm name	Description	Countermeasures
C1	Stripper Sensor Err	The home position for suction shutter is OFF	Check the cable disconnection, air leaks, sensor malfunction, and stripper for adjustment. Remove the cause. Set the stripper mode switch to the bypass mode temporarily and press the CBF start button. Then set it back to the automatic operation mode.
C2	Bobbin Come Off	The bobbin was removed from the tray during the stripper operation	Check stripper for adjustment. Remove the cause. Set the stripper mode switch to the bypass mode temporarily and press the CBF start button. Then set it back to the automatic operation mode.
C5	Cylinder Alarm	There is a cylinder error on the stripper. An alarm occurred due to a lower end sag, or due to an upper/lower end sensor detection error.	Check air leaks, sensor malfunction, and stripper for adjustment. Set the stripper mode switch to the bypass mode temporarily and press the CBF start button. Then set it back to the automatic operation mode.
C6	Tray Dischrg Failure	Tray was not ejected properly at the stripper	Remove the cause. Set the stripper mode switch to the bypass mode temporarily and press the CBF start button. Then set it back to the automatic operation mode.
C7	Tray Jammed After Stripper	Tray is jammed after stripper	Remove the cause. Set the stripper mode switch to the bypass mode temporarily and press the CBF start button. Then set it back to the automatic operation mode.
C8	Tray Jam Before Stripper	Tray is jammed before stripper	Remove the cause. Set the stripper mode switch to the bypass mode temporarily and press the CBF start button. Then set it back to the automatic operation mode.

d: Bobbin ejector (d1~d4: Front side of the machine, d5~d8: Back side of the machine)

No.	Alarm name	Description	Countermeasures
d1 d5	Bobbin Removal Failure	Bobbin was not removed at the bobbin ejector	- Make sure that a matching tray is used for the bobbin - Check if the belt is worn - If the belt does not rotate, check the motor
d2 d6	Bobbin Jam Inside Ejector	The passage check sensor does not turn ON even 3 seconds after the bobbin is removed	- Check if a bobbin is jammed near the passage check sensor inside the bobbin ejector - Check the sensor if an alarm occurs even when there is no jammed bobbin
d3 d7	Ejctr Peripheral Tray Blck	1) The tray detection sensor remains ON even after the feed solenoid operates three times repeatedly 2) The tray detection sensor at the bobbin ejector is OFF, and the full of trays detection sensor is ON at the same time. 3) Even though four trays are fed from the bobbin ejector, the full of trays detection sensor does not turn ON at the supply part chute position.	1) Check if a bobbin with yarn is stuck to the bobbin ejector at the bobbin removing position. If an alarm occurs even when there is no problem, check the tray detection sensor and the feed solenoid 2) Check if a bobbin is stuck to the bobbin pusher guide or the full bobbin detection feeler 3) Check if there is a yarn dragging between the bobbin ejector and the chute part, and remove the cause. If this alarm occurs frequently even when there is no jammed tray, check if the feed solenoid in the bobbin ejector and the full of bobbins detection sensor in the chute position detect a tray correctly. * Readjust the device that has a problem to remove the cause of any tray jam
d4 d8	Emp Bobbin Transport Error * This alarm will not be displayed if the setting of the “Empty bobbin return” is “Without” on the VOS screen.	A problem occurred at the empty bobbin conveyance device.	Check if the empty bobbin conveyance device is working correctly

E: Yarn end finder (E 1~E4: Front side of the machine, E5~E8: Back side of the machine)

No.	Alarm name	Description	Countermeasures
E 1 E5	Mouth moved off home pos	Cop-Robo mouth is not in the home position	Check the air pressure and home position sensor
E2 E6	Bobbin Removal Alarm	A bobbin is missing at the Cop-Robo mouth.	- Check bobbin holder for adjustment - Press the CBF stop button, and remove the bobbin. Then press the CBF start button.
E3 E7	Tray Jam at YEF	A tray is jammed either at the rotary cutter or the searcher part	Remove the cause
E4 E8	Tray Jam Before YEF	A tray is jammed right before the rotary cutter	Remove the cause

F: After yarn end finder (feed conveyor)

No.	Alarm name	Description	Countermeasures
F 1	Tray Jam at CBF Exit	A tray is jammed at the CBF exit	Remove the cause
F2	Tray Jam At Feed C/V	A tray is jammed on the back side of the winding unit and at the feed conveyor	Remove the cause

G: Bypass line (G 1~G2: Front side of the machine, G5~G6: Back side of the machine)

No.	Alarm name	Description	Countermeasures
G 1 G5	TrayFull inBypassLine	The bypass line is full of trays	Process the yarn tip, and press the bypass button
G2 G6	3-min Alarm Actvtn in Bypass	A large number of bobbins with yarn end finding errors have occurred	Process bobbins in the bypass line, and press the bypass button

H: Link conveyor

No.	Alarm name	Description	Countermeasures
H1	*Spin Inspector Tag Error Alarm	Defective tag detected at reading station	Remove defective tag tray
H2	Empty Line Related Error	A problem has occurred at the return conveyor of the link part	Remove the cause
H3	FullBobbin Related Error	A problem has occurred in the feed conveyor of the link part	Remove the cause
H4	*CBFSpeCntlBoard Alm	An alarm has occurred at the control box mounted for CBF special specifications	Check the cable outlets, such as the thermal trip and power supply connector as well as the switch setting for each printed circuit board.
H5	*YrnWasteRmv Eqp Alm	An alarm has occurred at the yarn waste removal device	Check the jammed tray and the cylinder out of home position.
H6	*Jam in Spin INS Buffer C/V	A tray is jammed in the spin inspector buffer conveyor	Remove the cause
H7	*Spin Inspctr Bffr C/V Thrml Trp	An overload or open-phase has occurred in the spin inspector buffer conveyor	Check the motor and belts, and remove the cause of the trip. Then reset the thermal relay.
H8	*Spin inspector Alarm	Check the tray detection sensor for the spin inspector	- Check the yarn dragging and tray guide for adjustment - Remove the cause

* Depending on the specifications, these may not be displayed.

J: Chute part (Front side of the machine), L: Chute part (Back side of the machine)

No.	Alarm name	Description	Countermeasures
J1 L1	Discharge Error at Chute	A tray feed error has occurred at the chute part	Remove the cause
J2 L2	Bobbin Chute Error	A chute error has occurred	Check the chute guide and the top/bottom judgement part
J4 L4	Tray Jammed before Chute	A tray is jammed before the chute part	Check the yarn dragging and the tray flow
J6 L6	Tray Jammed after Chute	A tray is jammed after the chute part	Check the yarn dragging and the tray flow

o: Supply part (Front side of the machine), P: Supply part (Back side of the machine),

[Parts feeder]

No.	Alarm name	Description	Countermeasures
o1 P1	Pump Motor Alarm	The pump motor is continuously running	Check the top end and bottom end of the hoist
o2 P2	Vibrating Feeder Motor Alarm	There is an inverter alarm for the vibrating feeder or a thermal trip	- Check the inverter alarm code and the motor load - Remove the cause and press the reset switch on the inverter
o3 P3	Supply Part Motor Alarm	An overload or open-phase has occurred at the supply part motor	- Check the thermal relay in the supply part control box - Check the load of the tripped motor
o4 P4	Bobbin Jammed on Pusher	A bobbin is jammed on the pusher	Remove the cause
o5 P5	Pusher Alarm	A bobbin is caught between pushers	- Remove the cause - Check pusher for adjustment. - Check the pusher operation detection sensor
o6 P6	Jam at Parts Feeder Exit	A bobbin is jammed at the parts feeder exit	Remove the cause
o7 P7	Bobbin Ejector Thermal Trip	An overload or open-phase has occurred at the bobbin ejector motor	- Check the thermal relay in the supply part control box - Check the bobbin ejector or the return conveyor motor
o8 P8	Emergency Stop	The CBF emergency stop switch is pressed at the supply part	Check the emergency stop switch located below the operating panel or the doffing box

[Vertical conveyor feeder]

No.	Alarm name	Description	Countermeasures
o1 P1	Bobbin Inlet is Clogged	A bobbin is clogged at dam part, or below vertical conveyor	- Remove the cause - Check bobbin detection sensor for adjustment
o2 P2	Vertical Conveyor Alarm	A bobbin is clogged on the vertical conveyor	Remove the cause
o3 P3	Supply Part Thermal Trip	Overload, phase interruption in bobbin ejector motor or residual-yarn ejector conveyor motor	- Check the thermal relay in the supply part control box - Check bobbin ejector or residual-yarn ejector conveyor motor
o4 P4	Bobbin Jammed on Pusher	A bobbin is jammed on or before pusher	- Remove the cause - Check bobbin detection sensor for adjustment
o5 P5	Pusher Alarm	A bobbin is caught between pushers	- Remove the cause - Check pusher for adjustment - Check pusher operation detection sensor
o6 P6	1 standby position bobbin stuck	A bobbin is clogged near single bobbin standby position	- Remove the cause - Check bobbin detection sensor for adjustment
o7 P7	Rotor Alarm	The home position for rotor is OFF	- Remove the cause - Check home position sensor for adjustment
o8 P8	Bunch Remover Alarm	- The home position for bunch remover is OFF - A bobbin is clogged in the bunch remover	- Remove the cause - Check home position sensor for adjustment

U: Steam setter

No.	Alarm name	Description	Countermeasures
U1	*Steam Setter Alarm	An error has occurred in the steam setter	Remove the cause
U2	*Setter Request Sig. OFF	A tray cannot be fed because the steam setter request signal is OFF	Remove the cause

* Depending on the specifications, these may not be displayed.

Y: Spinning frame (for Link Coner only)

No.	Alarm name	Description	Countermeasures
Y1	Spinning Frame Error	An error has occurred at the spinning frame	Check the spinning frame
Y2	Jammed at spin. Frame	A tray is jammed at the spinning frame entrance	Check the spinning frame

Sec 2 Troubleshooting

2-1 Cop-Robo

- **When the yarn end find operation does not perform for a full bobbin, but it does for an empty bobbin**

Cause	Countermeasures
There is a full bobbin detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor

2-2 Tray Conveyor

- **When the return conveyor motor and the CBF conveyor belt do not rotate**

Symptom	Cause	Countermeasures
Motor operates normally (turns on)	Belt fell off	Remove yarn waste and attach belt
	Belt is slipping	- Remove yarn entangled on pulley - Replace belt if it is stretched
	Belt broke apart	Replace belt
Motor does not operate	Thermal relay tripped	- Check for pulley faults (yarn entanglement or bearing damage) →Remove yarn waste, or replace bearing - Check for motor errors →Replace motor - Check whether a motor connector has been disconnected
	Machine is stopped (normal)	When emergency stop switch has been pressed, release it and press CBF start button
	Maintenance mode is enabled (normal)	Check operation indicator (green LED). If flashing, turn maintenance switch OFF, then press CBF start button.
	Slave force output mode is enabled (normal)	Check CBF alarm indicator. If "－－" is displayed, check each slave and cancel force output mode. Then press CBF start button.
	***Only the return conveyor motor** Tray conveyor switch is OFF (normal)	Check machine and CBF tray conveyor switch

- **When the tray feed is not working properly**

Cause	Countermeasures
Clogged with yarn waste or cotton fly	Remove yarn waste or cotton fly
Belt is worn	Replace belt
Belt spring guide is warped or bent	Repair warped or bent spring guide

- **When the tray does not return to the spinning frame, the empty bobbin is not ejected by the bobbin ejector, or it does not chute into the empty tray**

Cause	Countermeasures
Lot change mode enabled	Check lot change key

2-3 Bobbin Stripper

- **When the removal operation does not occur even though the bobbin still has yarn remaining on it**

Symptom	Cause	Countermeasures
Tray is ejected without performing removal operation	There is a full bobbin detection sensor error	- Adjust full bobbin detection feeler - Check sensor input If error persists, check connectors or replace sensor
	There is a sensor error for detecting bobbins that need winding	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
Tray stops at removal position	There is a tray detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a tray guide error	Adjust tray guide position
	There is a tray feed solenoid error	- Check solenoid for adjustment - Check solenoid output If error persists, check connectors or replace solenoid
	There is an air pipe fault	Check air piping and replace if necessary

2-4 Bobbin Ejector

- **The removal operation for empty bobbins does not occur**

Symptom	Cause	Countermeasures
Tray is ejected without performing removal operation	There is a full bobbin detection sensor error	- Adjust full bobbin detection feeler - Check sensor input If error persists, check connectors or replace sensor
	There is a bobbin detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
Tray stops at removal position	There is a tray detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a tray guide error	Adjust tray guide position
	There is a solenoid valve for removing bobbins error	- Check the operation of the solenoid valve for removing bobbins - Check for air leaks

- **Bobbins are not removal**

Symptom	Cause	Countermeasures
Motor operates normally (turns on)	Belt fell off	Remove entangled yarn and attach belt
	Belt is slipping	Remove entangled yarn and adjust belt
	Belt broke apart	Replace belt
	There is a Cylinder for removing bobbins error	- Check cylinder operation - Check for air leaks
	There is a tray and bobbins error	Check match between tray and bobbin
Motor does not operate	Thermal relay tripped	- Check for pulley faults (yarn entanglement or bearing damage) →Remove yarn waste, or replace bearing - Check for motor errors →Replace motor - Check whether a motor connector has been disconnected

- **When the ejected bobbins are not separated, that is, all the bobbins are either ejected only into the empty bobbin chute, or only into the skinny bobbin (minimal yarn remaining) chute**

Symptom	Cause	Countermeasures
Skinny bobbin ejection cylinder sometimes fails	There is a skinny bobbin detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a cylinder error	- Check cylinder for adjustment - Check cylinder operation - Check for air leaks
	There is a Minimal Yarn Detection Brush error	- Check brush for adjustment - Check if brush is worn
Skinny bobbin ejection cylinder operates when necessary	There is a skinny bobbin detection sensor error	Check sensor for adjustment
	There is a Minimal Yarn Detection Brush error	Check brush for adjustment
Skinny bobbin ejection cylinder does not operate at all	There is a skinny bobbin detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a cylinder error	- Check cylinder for adjustment - Check cylinder operation - Check for air leaks - Check solenoid valve operation
	There is a Minimal Yarn Detection Brush error	- Check brush for adjustment - Check if brush is worn

- **When the tray is not fed after bobbin removal**

Symptom	Cause	Countermeasures
Supply unit chute is not full	There is a PXS (chute position full with trays) error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a solenoid error on tray feed from bobbin ejector	- Check solenoid for adjustment - Check solenoid output If error persists, check connectors or replace solenoid
	There is a tray guide error	Check guide for adjustment
Supply unit chute is full	Normal	---

- **When the rotating warning light (red) turns on**

Symptom	Cause	Countermeasures
Tray on bobbin ejector is clogged	There is a solenoid error on tray feed from bobbin ejector	- Check solenoid for adjustment - Check solenoid output If error persists, check connectors or replace solenoid
Bobbin fell off near bobbin ejector	There is a bobbin removal drive error	- Check pulley connection for bobbin removal - Check cylinder for adjustment
	There is a bobbin removal guide error	Check bobbin guide connection and positioning adjustment
Bobbin is clogging or blocking bobbin ejector	There is a bobbin removal guide error	Check bobbin guide connection and positioning adjustment
	There is a bobbin ejector motor error	- Check for entangled yarn on pulley - Check belt for adjustment
Cannot find error, but rotating warning light is turned on	There is a passage check sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a tray detection sensor error	Check if cotton fly or yarn waste has been detected

2-5 Hoist

- **When the hoist does not rise even if the raise button is pressed**

Cause	Countermeasures
There is a doffing box detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
There is a bottom end sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
There is an inlet sensor error on vibrating conveyor	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
There is a hydraulic system error	Check the rate of discharge flow, discharge pressure, and amount of the restriction of oil

2-6 Vibrating Conveyor

- **When the vibrating conveyor does not operate even though there are no bobbins inside the parts feeder**

Cause	Countermeasures
There is a parts feeder level sensor error	- Check sensor input If error persists, check connectors or replace sensor

2-7 Parts Feeder

- **When the parts feeder does not operate even though there are no bobbins on the feed roller**

Cause	Countermeasures
There is a bobbin detection sensor error on the feed roller	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor

2-8 Chute

- **When bobbins are not chuted even though the tray is empty**

Cause	Countermeasures
There is a bobbin detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor

- **Pusher does not operate**

Symptom	Cause	Countermeasures
Bobbins are waiting on pusher	There is a bobbin detection sensor error on pusher	- Check sensor input If error persists, check connectors or replace sensor
	There is a pusher operation detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
Empty tray is waiting	There is a tray detection sensor	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor

- **Chute error occurs frequently**

Cause	Countermeasures
There is a bobbin top/bottom sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
There is a bobbin top/bottom feeler error	Check bobbin top/bottom feeler for adjustment
There is a bobbin guide error	Check bobbin guide for adjustment
There is a bobbin top/bottom detection lever drive cylinder error	Check air piping
There is a chute guide error	Check air piping

- **Feed roller does not rotate**

Symptom	Cause	Countermeasures
Motor operates normally (turns on)	Belt fell off	Remove entangled yarn and attach belt
	Belt is slipping	Remove entangled yarn and adjust belt
	Belt broke apart	Replace belt
Motor does not operate	There is A bobbin detection sensor error on pusher	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a feed roller bobbin detection sensor error	- Check sensor for adjustment - Check sensor input If error persists, check connectors or replace sensor
	There is a motor error	Check an overload (entangled yarn, etc.)